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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/898,564	07/03/2001	Kazuto Kobayashi	MM4451	4871

7590 05/06/2002

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1251 Avenue of the Americas  
New York, NY 10020

EXAMINER

DOROSHENK, ALEXA A

ART UNIT	PAPER NUMBER
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1764

5

DATE MAILED: 05/06/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/898,564

Applicant(s)

KOBAYASHI ET AL.

Examiner

Alexa A. Doroshenk

Art Unit

1764

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 17 January 2002.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) 1-3 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 4-6 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 03 July 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All   b) ☐ Some \*   c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☒ Certified copies of the priority documents have been received in Application No. 09/410,871.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

### ***Election/Restrictions***

## Drawings

### ***Claim Rejections - 35 USC § 112***

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

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The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 4-6 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

✓ Claim 4 recites the limitation "the reaction tube" in line 9. There is insufficient antecedent basis for this limitation in the claim.

✓ In Claim 4, line 12, it is believed by the examiner that the word "lest" is a typo of the word "least". Correction or clarification is required.

✓ Claim 4, line 13, it is unclear to the examiner as to what is intended by "a shielding plate in which at least (spelling correction assumed) one of the whole and a part thereof is detachable". Whole are part of what? Does applicant intend that the entire plate or a part of the plate may be detachable? If so, detachable in relation to what other structural element?

✓ Claim 4 recites the limitation "the lower outlet of the central tube" in line 17. There is insufficient antecedent basis for this limitation in the claim.

Claim 4 is unclear as "a circular space" of line 9 and "a circular duct" of line 18 are defined as the same elements. Both being the element surrounded by the inner tube and the reaction tube. How can this be? Are they the same element? If so, how can flow go both upwards and downwards through this element?

The examiner also notes, in claim 4, lines 15-21 appear to be operational conditions that do not extend to limit the structure of the apparatus.

In claim 5, line 25, it is unclear as to what is intended by "in an upper position than the lower end of the reaction tube". The examiner has interpreted this claim, for examination purposes, as the inner tube being located in a position above a lower end of the reaction tube.

Claim 6 recites the limitation "the lower end" in line 2. There is insufficient antecedent basis for this limitation in the claim.

In claim 6, lines 4-5, it is unclear as to what is intended by "farther by 1/10 to 2/3 of the length of the reaction tube from the upper end of the reaction tube". The central tube lower end is farther than what? The language of claim 6 is so unclear as to preclude it from being examined on its merits.

### ***Claim Rejections - 35 USC § 102***

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

8. Claims 4 and 5, as best understood by the examiner, are rejected under 35 U.S.C. 102(b) as being anticipated by Shinkawa et al. (4,938,930).

With respect to claim 4, Shinkawa et al. disclose an apparatus for the synthesis of methanol (col. 1, lines 12-17) comprising an inner tube (3) with a closed lower end (see fig. 5) disposed almost in the center of a reaction tube (1); a central tube (see element in the center of fig. 5 which is not numbered) in the center of the inner tube (3); a catalyst-charged space (13) surrounded by the reaction tube (1) and the inner tube (3); and a plate (col. 3, line 21) which is disposed at the upper end of the reaction tube (1) and connected to the center tube (see fig. 5). In regard to the additional unclear language in the claim (see 35 USC 112 rejection above), Shinkawa et al. additionally illustrates appropriate inlets and outlets (see fig. 5).

With respect to claim 5, Shinkawa et al. discloses wherein the inner tube (3) is located in a position above the lowest end of the reaction tube (1) (see fig. 5).

### ***Conclusion***

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alexa A. Doroshenk whose telephone number is 703-305-0074. The examiner can normally be reached on Monday - Thursday from 8:30 AM - 7:00 PM.

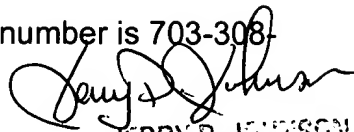
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marian Knode can be reached on 703-308-4311. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9310 for regular communications and 703-872-9311 for After Final communications.


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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.

  
JERRY D. JOHNSON  
PRIMARY EXAMINER  
GROUP 1100

  
AAD  
May 2, 2002